

66. (*Amended*) In a mobile radio communications system having plural mobile radio hosts communicating with a radio network over a radio interface using radio resources from a pool of resources that may be allocated to the plural mobile radio hosts where a mobile host communicates packet data with an external network by way of a packet gateway node associated with the radio network and a packet serving node associated with the radio network, a method comprising:

establishing a packet session for the mobile radio host over the radio interface using radio resources from the pool during which plural application flows are communicated between the mobile host and an external network entity, each application flow having a corresponding stream of packets;

making a reservation request for a particular quality of service for an individual application flow associated with the packet session;

determining whether the reservation request can be met with radio resources from the pool; and

if so, establishing a logical bearer between the mobile radio host and the gateway node to bear plural ones of the individual application flows having different corresponding quality of services.

67. (*Amended*) The method in claim 66, further comprising:

classifying and scheduling packets corresponding to each application flow from the external network to the mobile radio host over the bearer in accordance with the quality of service corresponding to the application packet stream.

80. (*Amended*) A mobile radio communications system, comprising:

a radio network;

plural mobile radio terminals configured to communicate with the radio network over a radio interface using radio resources from a pool of radio resources that may be allocated to the plural mobile radio terminals;

one mobile radio terminal configured to establish a data packet communications session over the radio interface using radio resources from the pool during which two application flows, corresponding to two data packet applications, communicate during the

cl cont  
B4  
Cont  
session two data packet streams corresponding to the two data packet applications with another entity in an external network, and

a radio packet network coupled between one mobile radio terminal and the external network entity for reserving a different quality of service class for each of the two data packet streams associated with the mobile radio terminal during the session;

wherein radio communication resources from the pool are reservable to support the two data packet streams with different quality of service classes.

86. (Amended) The mobile radio communications system in claim 80, further comprising:

a database node that stores subscription information for the mobile radio terminal specifying whether the mobile radio terminal may request a quality of service for specific application data packet streams,

B5  
wherein the radio packet network checks the subscription information in the database node before a quality of service class is reserved.

87. (Amended) The mobile radio communications system in claim 80, wherein the radio packet network includes:

a serving node coupled between the gateway node and the mobile terminal;

a gateway node coupled between the serving node and the external network entity.

94. (Amended) The mobile radio communications system in claim 87, wherein the serving node includes:

a first set of queues storing packets having the same quality of service class and data packet communications session;

a second set of queues storing packet having the same quality of service class and the same mobile terminal; and

B6  
cont  
a third set of queues storing packets being served in a same geographic area and having the same quality of service class.

95. (Amended) In a mobile radio communications system including a radio network coupled to a radio packet network coupled to an external network where plural mobile radio

B6  
Concl

terminals communicate over a radio interface with the radio network using radio resources from a pool of radio resources that may be allocated to the mobile radio terminals, a mobile radio terminal comprising a reservation controller configured to reserve a different quality of service for different ones of plural data packet streams associated with corresponding applications operating at the mobile radio terminal and established during a data session when the mobile radio terminal is attached to the radio packet network, the reservation controller also being configured to request from the radio network, reservation of radio resources from the pool to support the different quality of services defined for the different data packet streams.

B7

104. (Amended) The radio packet network node in claim 103, wherein the network packet layer bearer permits relay of data packets between the external network entity and the mobile radio terminal.

C1  
B8

115. For use in a mobile radio communications system having plural mobile radio hosts communicating with a radio network over a radio interface using radio resources from a pool of radio resources that may be allocated to the plural mobile radio hosts, where the mobile radio hosts communicate packet data with an external network by way of a packet gateway node and a packet serving node associated with the radio network, wherein a packet session is established over the radio interface for a mobile radio host using radio resources from the pool during which plural application flows are communicated with an external network entity, each application flow having a corresponding stream of packets, and a corresponding quality of service parameter is defined for each of the plural application flows such that different quality of service parameters may be defined for different ones of the application flows, a radio packet network node, comprising:  
electronic circuitry configured to merge packets from different sessions with a same quality of service destined for different mobile radio hosts within a same geographical service area.

REMARKS

Reconsideration and allowance of the subject application are respectfully requested.